

## STAGE WITH ISOLATED ACTUATORS FOR LOW VACUUM ENVIRONMENT

### Abstract

5           Methods and apparatus for enabling a stage apparatus to scan an object within a vacuum environment while isolating actuators, cables, and hoses from the vacuum environment are disclosed. According to one aspect of the present invention, a stage apparatus includes a first stage and a first actuator. The first stage is effectively configured such that an interior space is defined substantially within the first stage. The  
10 first actuator is positioned within the interior space, and drives the first stage in a first direction.